



# ENERGY INTERNATIONAL REPORT



SUMMER 2014

## In This Issue

### ■ NEWS

Alex M. Fawaz Named VP of Operations at EIC • Cosa Tron Choses EIC as Middle East Rep • EIC to Represent SEMPA Ltd. in the Middle East • EIC Announces Agreement with Cooling Tower Suppliers Jacir/Gohl • Energy Industrial & Engineering Moves to New Beirut Office • EIC Parking & Transportation Receives RTA Award • EIC Sponsors Michigan Rage U-14 Baseball Team

### ■ PROJECTS

King Abdulaziz Center for World Culture - Riyadh, Saudi Arabia • Damac Tower - Beirut, Lebanon

### ■ TECH

MetalAire Opens Product Testing Facilities

### ■ PEOPLE

EIC People News

EIC report is published twice a year by and for the employees of Energy International Corporation and their friends and associates in the business. All inquiries should be sent to: [jpeter@energyintl.com](mailto:jpeter@energyintl.com).  
©2014 Energy International Corporation.  
6850 N. Haggerty Rd., Canton, MI 48187  
+734-354-2000 • [info@energyintl.com](mailto:info@energyintl.com)  
[www.energyintl.com](http://www.energyintl.com)

## Letter from the Top • Ned Fawaz

The summer season is upon us all. As we cross the midway point of 2014, we continue to celebrate 35 years in business and look forward to the next 35 years. 2014 is sizing up to be a pivotal year for the company. Energy International & Engineering, our Beirut, Lebanon office managed by Bechara Saab, has recently moved into a larger space providing room for our estimation department to grow - and grow it has. We already added four new employees this year. These new faces will help us to more efficiently serve our current and new customers. We are adding new products to the EIC product portfolio, having signed agreements with Jacir-Gohl, a leading supplier of cooling towers with plants in France and Germany. We are also busy marketing our new line of HVAC and firefighting pumps manufactured by SEMPA in Turkey. I am also proud to announce that Alex M. Fawaz has joined the company as Vice President of Operations. He is working out of the company's U.S. headquarters and will be in charge of overseeing the day-to-day operations of the company as we continue to implement our Customer Relation Manager. We'll have plenty more to share in the near future. This issue also includes coverage of recent projects and an article on the new laboratory and testing facility opened by our partner MetalAire. 🇺🇸



**Dr. Ned Fawaz**  
Chief Executive Officer

## Be a Part of the Energy International Report

The EIC Report is designed to keep everyone at Energy International informed about the happenings at EIC, from the acquisition of multi-million dollar contracts to the latest additions to the EIC family. We need your participation to help make it a success. If it's of interest to you, it's of interest to us. We'd also like to know what you think about the newsletter content and format and how we can make it better. Send all your news, information, thoughts and ideas to [jpeter@energyintl.com](mailto:jpeter@energyintl.com). I look forward to hearing from you.



# EIC NEWS

The Latest News

## Alex Michael Fawaz Named VP of Operations at Energy International

*Fawaz will oversee day-to-day operations of the company's regional sales offices*

**E**nergy International Corporation is proud to announce the appointment of Alex Michael Fawaz as Vice President of Operations, working out of the company's global headquarters in Canton, MI, USA.

Mr. Fawaz will oversee the day-to-day operations of EIC's sales offices situated throughout the gulf region, working with the company's satellite offices and agencies implementing new operations and marketing strategies that will increase efficiency and provide better service to EIC's customers in the Middle East. He will also be responsible for growing the company into emerging markets in Northern Africa and Asia.

"We are pleased to have Alex joining the executive staff at EIC," said Ned Fawaz, CEO at Energy International Corporation. "Alex has a long-standing history with EIC, having grown up in the family business. He has played an integral role in the company's growth over the last 34 years and will help us grow for many years to come."

Alex worked in the EIC warehouse and served as an Estimation/Sales Engineer at the U.S headquarters while attending school

at the University of Michigan, concentrating his studies on molecular biology. Alex has also conducted biomedical research for the University of Michigan Health System and was one of a team of individuals who were selected and tasked with successfully creating one of the nation's first Federally Contracted Accountable Care Organizations.

Most recently, Alex was a principle at Cleanetics, a leading, full-service, design, build cleanroom supplier (and a subsidiary of Energy International), where he oversaw the installation and upgrade of clean room facilities for a number of U.S clients including the Mount Sinai Medical Center in New York, as well as the Shaikh Khalifa Medical City and the Cleveland Clinic in Abu Dhabi, United Arab Emirates. 🇦🇪



Alex Michael Fawaz has been named Vice President of Operations for Energy International Corp.

## Cosa Tron Selects Energy International as Representative for Middle East Countries

**C**osaTron, the leading U.S. manufacturer of air purification systems for commercial HVAC systems sold worldwide, announces that it has established Energy

International Corporation (EIC) as the representative to the Middle East. EIC has key strategic locations in Qatar, UAE, Lebanon, Jordan, Kuwait and Saudi Arabia.

EIC will represent the full line of CosaTron Air Purification Systems designed to solve indoor air quality and contaminant issues, a problem that is prevalent in countries around the world, affecting airports, medical facilities, government agencies, schools, retail spaces, convention centers and other industrial and commercial buildings. CosaTron systems can be designed to fit a new construction



or any retrofit installation.

"We welcome the addition of the CosaTron product line to the Energy International product portfolio," said Allie Bazy, President, Energy

International Corporation. "Indoor environmental quality has become a major focal point in the GCC region over the last few years. We look forward to working with CosaTron to meet the needs of this growing market.

CosaTron Director of Sales, Doug Crooks stated, "We are proud of our partnership with Energy International. Their business philosophy aligns with ours in every aspect and their presence across the entire Middle East Region will allow us to increase our market penetration in that area of the world. " 🇦🇪



### EIC to Represent SEMPA Ltd. in the Middle East

*EIC expands its product portfolio with a line of HVAC, firefighting and waste water pumps*

**E**nergy International Corporation has signed an agreement with SEMPA Ltd., a leading manufacturer of pumps for firefighting and industrial applications, to be their exclusive representative in the Middle East.

SEMPA Ltd., headquartered in the Konya region of Turkey, is a family-owned business founded in 1972 under the name of MSM to meet a need for quality horizontal and vertical centrifugal pumps in the region. Over the years, SEMPA has expanded their portfolio to include deep well pumps, submersible pumps, booster sets, diesel and electric fire pumps and waste water and sewage pumps.

All SEMPA pumps are manufactured at the company's 3,800 square-meter manufacturing facility in Kosan. SEMPA pumps are designed and built by a team of experienced professionals utilizing the latest state-of-the-art manufacturing technologies ensuring top quality products at competitive prices.

All pumps are manufactured to TSE Quality and ISO 9001:2000 standards and carry the Quality Management System Certificate.

"We are pleased to be working with SEMPA pumps throughout the entire Middle East," said Allie Bazy, President, Energy International Corporation. "We have had a solid relationship with SEMPA through our Jordan office for the last year and have experienced a lot of success in that market."

"SEMPA pumps are now being specified by contractors in the Jordan market," added Bazy. "There is a huge demand in the GCC region for high-quality pumps for firefighting and sewage treatment applications, and as components for chilled water systems. We look forward to helping build the SEMPA brand in the Gulf region."


SEMPA has earned a reputation for its quality products has supplied pumps to a number of major projects in Turkey and nearby Iraq. SEMPA's list of recent projects includes supplying fire pumps to the fire-fighting system for the mass



SEMPA carries a full-line of pumps for most every HVAC requirement as well as fire-fighting pumps.

transit subway and rail system servicing Ankara, the capital city of Turkey. SEMPA has also supplied pumps for updates to the Grand National Assembly building that houses Turkey's Parliament, a new state-of-the-art Unilever ice cream factory which is currently under construction, and the Prishtina International airport in Kosovo.

SEMPA has also supplied pumps to Oilserv, an Iraqi-based oilfield services provider servicing oilfields in Iraq, Libya and Tunisia.

For more information on SEMPA pumps or to request a quote, contact your local Energy international office or e-mail inquiries to [energy@energyintl.com](mailto:energy@energyintl.com). A general products catalog is available for download at [www.energyintl.com](http://www.energyintl.com). 

*All Sempa pumps are manufactured to TSE Quality and ISO 9001:2000 standards and carry the Quality Management System Certificate.*



### EIC Announces Agreement with Cooling Tower Suppliers Jacir-Gohl

*Energy International to represent leading European cooling experts in the Middle East*

**E**nergy International Corporation announces an agreement with Jacir Cooling Towers and E. W. Gohl GmbH to represent their products in the Middle East.

Jacir, with headquarters in Pontault-Combault, France has more than 50 years of experience combining a complete know-how in aeraulics, thermal management and selection of materials resulting in a wide range of cooling tower solutions to meet any requirement.

We are pleased to have Jacir and E. W. Gohl as partners with EIC," said Dr. Ned Fawaz, CEO, Energy International Corporation. "Jacir/Gohl products are designed to set the standards for the evaporative cooling industry. We look forward to assisting in bringing these efficient, environmentally-sound technologies to the Middle East."

Jacir technologies are developed in accordance with global environmental regulations and are compatible with stringent sound requirements. They offer a wide array of specially-designed components and patented technologies, such as fan combinations, materials, exchange surfaces and filtration systems to design a system ideally-suited for Industrial and HVAC applications.

Jacir offers a full-line of products, all manufactured at the company's factory in Hautot Sur Mer, France. Products include; open circuit, closed circuit, open hybrid and closed hybrid units and a Topaz Adiabatic Cooler, available in a wide range of materials and finishes. All towers are scalable and designed to be retrofitted with future technologies.

Jacir has worked with a number of prominent companies throughout the world including Nestle, Volkswagen and Purina.


E. W. Gohl, a subsidiary of Jacir, has been a European leading expert in innovative cooling technology for more than half a century. Gohl uses its technological competence,



Jacir-Gohl have partnered to become a leading European manufacturer of cooling solutions, supplying a number of prominent global companies with their technologically-advanced products.

comprehensive know-how and state-of-the-art manufacturing processes to provide customers with modern solutions and systems in the field of serial cooling.

All Gohl cooling towers are manufactured for long-term corrosive protection using a process called whirl sintering. Developed in-house, the process fuses a 0.3 mm layer of performance polymer alloy to galvanized sheet steel resulting in a corrosive resistant material that also reduces risk of injury, provides added sound insulation and reduced vibration.

Visit [www.energyintl.com](http://www.energyintl.com) for more information on Jacir and Gohl products. 

*"Jacir-Gohl products are designed to set the standards for the evaporative cooling industry. We look forward to assisting in bringing these efficient, environmentally-sound technologies to the Middle East." - Dr. Ned Fawaz, CEO, Energy International Corporation*





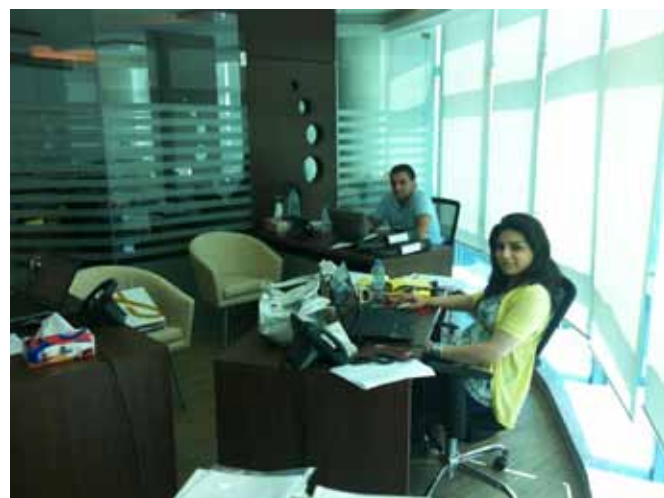
# EIC NEWS

The Latest News

## Energy Industrial & Engineering Moves to New Office in Beirut

**E**nergy International & Engineering, EIC's satellite office in Lebanon, has moved to new quarters. The new offices are located in Hazmeih, west of the main Beirut city center.

The new office provides Energy International & Engineering with additional space for current employees with room for future growth. The 2,400 square-meter space features a lower level with lobby, executive and management offices and space for engineers. An upper mezzanine level will be used for expansion. ■



Bechara Saab (top) Vice President of Energy International & Engineering sits behind the desk in his new office. Tony El Kehdy (above left), Amany Saayed and Said Bou Orm (above) share space in the main room of the new Hazmeih office. Joumana Baydoun greets customers and visitors in the new lobby area (far left). Moahoud Al Kirdi enjoys the view of the city from the windows behind his desk.



# EIC NEWS

The Latest News

## EIC Parking & Transportation Division Receives RTA Award

*EIC recognized for its sponsorship and support in the success of Dubai's 42nd National Day celebration*

**E**IC Parking & Transportation joined in the festivities at the official UAE National Day celebrations held on December 2, 2013 at the Burj Park at Downtown Burj Dubai.

Energy International Corporation's Parking & Transportation division joined with the RTA Marine to sponsor this year's event, providing the wrapping of the Dubai's fleet of water ferries in a festive display of the Emirate's flag and portraits of the distinguished rulers.

The Parking & Transportation division was awarded a certificate recognizing EIC's effective contribution to making the National Day celebration a success. The certificate was accepted by Hussein Farran, Business Development Manager for EIC Parking & Transportation at a gathering for contractors and suppliers hosted by the RTA Marine following the event.

"EIC is involved with RTA Marine through our implementation and continued



Hussein Farran, Business Development Manager for EIC Parking & Transportation accepts the certificate recognizing EIC's effective contribution to making the National Day celebration a success

long term maintenance of the Automated Fare Collection System (AFC)," said Farran. "The RTA often reaches out to their strategic partners to sponsor their events. We were contacted by the Marine Transport Department to sponsor the wrapping of the ferries for the National Day."

As sole provider of land public transport, the RTA played a major role

in the event, transporting festival goers around the city on buses, taxis, metro rail, water taxis, ferries and water buses.

Thousands of people – both nationals and expatriates – filled Burj Park in downtown Dubai, UAE to join in the official celebrations.

The Burj Khalifa was lit from top to bottom with the colors of the UAE National Flag, setting the stage for a downtown that was alive with children and adults dressed in colorful attire, displaying the rich cultural heritage and the unity and oneness of a proud nation.

The two-hour long program of light, color and storytelling, titled, "The Happiest Nation," narrated the story of a nation as it evolved from its humble beginnings and emphasized the grand progress made during the past decades.

Among the dignitaries present were the Vice President and Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum. 🇦🇪



## All The Rage

Energy International is providing sponsorship for The Michigan Rage, an under 14 youth baseball team. The team is made up of players from around the New Boston, Michigan area and competes in tournament play throughout southeast Michigan and Ohio. Team members include Jarod Hoge (far left) and his brother Christopher (next to Jarod with bat extended). The Hoge brothers are the sons of Ron Hoge, EIC Controller. Jarod works part-time at the Canton office assisting in the warehouse.





# PROJECT NEWS

King Abdulaziz Center for World Culture - Dhahran, Saudi Arabia

## Protecting a National Landmark

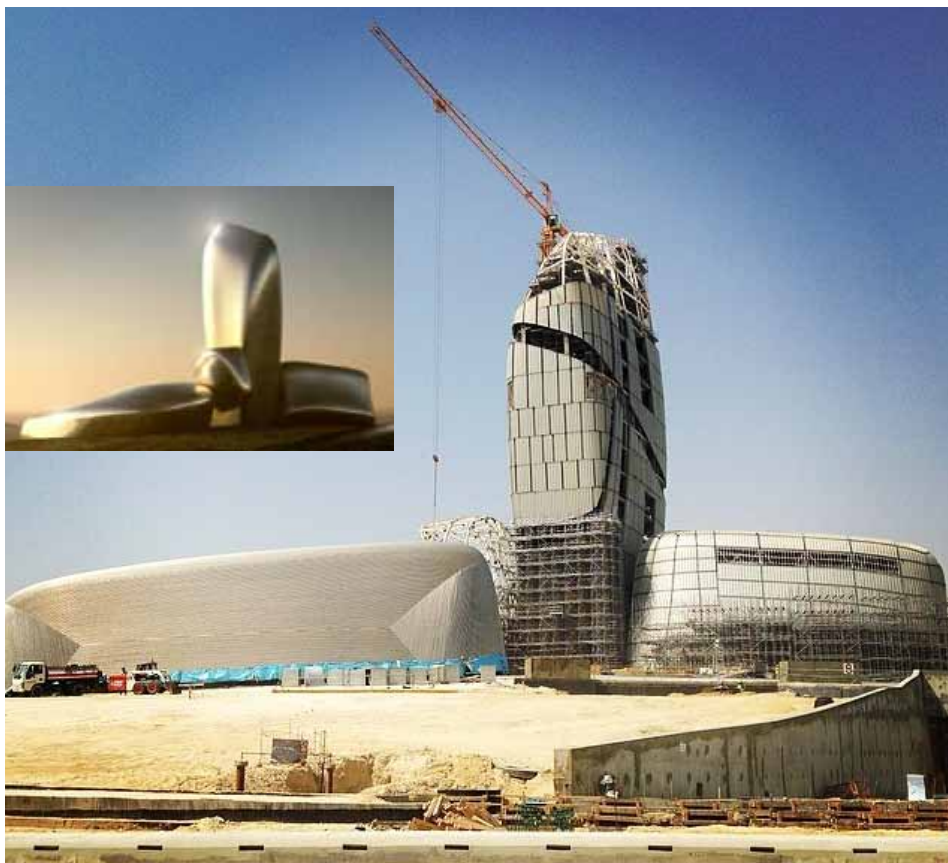
*EIC and BLE Group supply fire and smoke curtains to new Saudi cultural center*

Construction is nearing completion on the King Abdulaziz Center for World Culture rising from the desert in Dhahran just outside of Dammam, Saudi Arabia.

The cultural center, commissioned by the Saudi Aramco Oil Company, is being built on top of the Dammam Dome in commemoration of the Saudi's first discovery of oil. It is designed as a national landmark and leading educational and cultural institution honoring Arab Heritage and connecting Saudis with their local culture as well as the world around them.

In a recent press release Nasser A. Al-Nafisee, General Manager of Saudi Aramco Public Affairs said, "The commencement of the Center's construction is a proud moment for us. For over 75 years, Saudi Aramco has been committed to making significant contributions toward the betterment of the nation, and the King Abdulaziz Center for World Culture will be one of the most visible and creative manifestations of that commitment, extending not just to the people of the Kingdom, but around the world."

The unique design, resembling a neatly-placed grouping of smooth stones, was chosen from a number of entries as part of an invite-only design contest held in 2007. The winning design was submitted by Snohetta, an integrated architecture, landscape, interior, branding and design firm based



Work continues on the King Abdulaziz Center for World Culture as crews apply the stainless steel skin to the main structures. Architects illustration of complex is shown in inset.

in Oslo, Norway and New York, NY.

Snohetta designers were inspired by the concept of cultural interdependency. While each section has its own discrete form, the individual pieces are placed together in such a way that no single object can be removed without the collapse of the larger composition.

Buro Happold, a professional services firm providing engineering consultancy, design, planning, project management

and consulting services for all aspects of buildings, infrastructure and environment, devised the innovative post-tension concrete system that supports the non-traditional cantilevered structure.

Saudi Oger, a leading contractor in the Kingdom has been tapped to build the complex.

The main central structure stands 60 meters tall with three stories below  
*continued on next page*



# PROJECT NEWS

King Abdulaziz Center for World Culture - Dharan, Saudi Arabia

ground level symbolizing the wealth found in the oil fields below. A 6,000 square meter plaza serves as a main entrance for all of the complex's cultural components, and is situated at ground level atop the sunken museum and surrounded by the other four buildings.

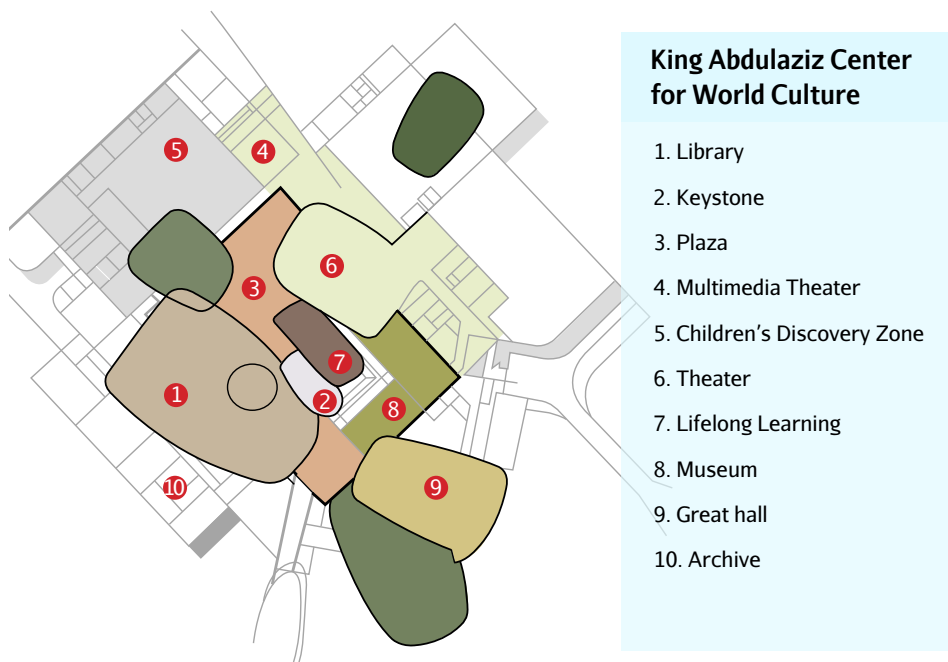
All of the above-ground structural elements are covered in a cloth-like reflective metal skin covered in a tubular steel sunscreen. The tubes are wrapped around the pebble shapes, flowing from a predetermined starting point around the objects creating a unique, but related, pattern for each one. The structure not only gives the building a stunning sheen but the tubes also provide for 100% passive solar shading for the building fabric.

The complex will be divided into a number of facilities.

The library will house print and digital volumes including a special collection of rare and perishable documents and an archive for preserving and viewing valuable artifacts relating to the Kingdom of Saudi Arabia and Saudi Aramco. There will also be multimedia and study spaces.

The Museum of Art and Antiquities will showcase a permanent collection alongside seasonal exhibitions on loan from other institutions and will offer classrooms and a multimedia room.

A Children's Education Center will consist of a museum and library designed specifically for children two through twelve years old complete with multimedia exhibits incorporating storytelling, video and audio. There will also be exhibit and activity spaces, a children's library and conveniences for students and teachers.



A visitor's center will provide information and services such as tour booking, stroller and wheelchair loans, first aid and telephones.

A gift shop will offer souvenirs, educational materials and cultural articles related to the exhibits at the Center and Saudi Aramco, such as music, films, traditional Bedouin and Saudi cookbooks, spices and jewelry.

The facility will also have a Media Center with a press office and briefing room, café, prayer room and exhibition and event facilities including large and small exhibition halls and an auditorium.

The surrounding grounds will feature greenery, fountains and ponds, picnic areas, playgrounds and an educational garden that features plants of Saudi Arabia and the Middle East.

Energy International Corporation secured the contact to supply fire and smoke curtains to the center.

The curtains will be manufactured by BLE Group of Sheffield, UK, a global leader in the design and manufacture of smoke and fire curtains. EIC is an exclusive representative for BLE in the Middle East and has partnered with them on a number of major projects in the region.

BLE manufactures and installs gravity fail-safe smoke and fire curtains that offer the latest in electronic technology and innovation, making them the first choice for designers, architects and engineers.

Fire and smoke curtains are a major component in any large structure's fire safety system.

Smoke curtains provide an unobtrusive and effective way of containing and channeling smoke. By providing an increased smoke layer depth BLE smoke curtains are effective at keeping smoke hot and therefore, at height, providing a simple yet effective  
*continued on next page*





# PROJECT NEWS

King Abdulaziz Center for World Culture - Dharan, Saudi Arabia

smoke protection solution.

BLE smoke curtains are also used to seal off areas, effectively preventing the spread of smoke between compartments.

BLE fire curtains are used to seal off areas preventing fire from spreading to other parts of the building. They can also be used to create a safety corridor allowing occupants to safely exit the building in the event of a fire.

BLE fire curtains are often used as an alternative to fire shutters as they provide a number of safety and aesthetic benefits including lighter weight, compact design and low power requirements.

The KACWC project utilizes BLE FC240 fire curtains and SC60 smoke curtains.

The project posed a number of challenges due mainly to the organic shapes of the main structures.

The FC240 Fire curtains will be installed at the bottom of the stairways leading down into the auditorium foyer. When deployed, the curtains will provide a barrier sealing off the auditorium from the rest of the structures. FC240 curtains will also be installed at the opening to the library elevator shaft on the second and fifth levels and on either end of the Keystone building that connects the library and the museum.

SC60 smoke curtains will be installed along the ramp access to the museum situated in the center of the complex. The 23 curtains run along the two exterior walls on the outside of the ramp. Each curtain has been designed with a specific drop length to correspond with the drop of the floor as the ramp descends down into the main room.

The library stands five levels tall



BLE smoke Curtains will be installed on the fourth and fifth levels of the library. The fifth level curtains will drop to the level of the balustrade at the top of the stairway (in the left of the above image and smoke along the balustrade to the other side of the room. Level four curtains will drop to meet the counter top in the lower right of the image where patrons are sitting.

with a circular, open mezzanine pierced by an escalator that provides access to the upper two levels. The design is echoed in a circular skylight situated above the mezzanine.

BLE SC60 smoke curtains are used on the fourth and fifth levels to create a smoke barrier and channel the smoke to exhaust fans designed to remove the smoke from the building.

The open-air layout and organic shapes provided a challenge for BLE's design team.


The fourth level utilizes 23 curtains that are mounted in an arcing pattern running along the southeast wall. The curtains will drop to meet the top of a counter that also arcs around the floor.

The headboxes are mounted on level but at different heights allowing the curtains to overlap when deployed.

Curtain gaps for drops less than 2,000 mm are 20mm. For drops more than 2,000mm the gaps are less than 40mm.

The 23 smoke curtains on the library fifth level start at the stairway and curve around the edge of the circular mezzanine opening, running across the room and curving along the wall opposite the stairway, dividing the room in two.

The smoke curtains drop to the height of the stairway balustrade and, similar to the fourth floor, headboxes are mounted to the wall at different heights to account for the curvature of the ceiling. Headboxes also overlap using the same gaps as those on the fourth level.

All curtains will be manufactured at BLE's facility in the UK. The headboxes will be fabricated and custom painted to match the interior décor of the facility. 



# PROJECT NEWS

Damac Tower - Beirut, Lebanon

## Renaissance Revival

*DAMAC Tower brings luxury living to the "Paris of the Middle East"*

**S**olidere, the Lebanese Company for the Development and Reconstruction of Beirut City Central s.a.l., lends its name to an elite community of high-end retail, posh restaurants and cafes, and some of the most premium residential addresses in town.

The ongoing project encompasses the rebuilding of the historical Beirut city center, devastated after years of civil war, into an ultra-modern community welcoming tourists from around the globe, a return to the days when Beirut was known as the "Paris of the Middle East" a reference made in the 1960s and early 1970s, to the city's stylish buildings, world-class cuisine and a general air of sophistication.

DAMAC Properties, one of the largest held luxury property development companies in the Middle East, based in Dubai, UAE, is constructing a 28 story luxury tower in the heart of the development.

The exterior, referred to as glamour in glass, is made up of sleek, flowing curves designed to emulate the waves of the Mediterranean Sea that provides the glorious view from many of the units.

The tower features a double-height grand lobby, secure parking on multiple levels, and convenient elevator access from the parking structure to the apartments.

Zaid el-Chaar, Managing Director of DAMAC Properties, describing the tower's appeal in an interview with Executive magazine said, "The starting point of a premium luxurious project is the location. The second point is that the uniqueness of this tower's design complements the premium location. [The third factor] is that we brought in one of the top Italian designers in fashion and homes to design the interiors of this project, starting from the lobby and going into each and every



The exterior design is constructed using sleek, flowing curves inspired by the waves of the Mediterranean Sea that provides the view from the luxury suites.



# PROJECT NEWS

Damac Tower - Beirut, Lebanon



apartment. The people that are buying and investing in this project will have a very exclusive property in a project that cannot be repeated in Beirut."

The DAMAC Tower will offer one-, two-, three- and four-bedroom spacious private units with custom-designed interiors, terraces with a unique design and spa bathroom with Jacuzzi and sauna where applicable. All units will feature smart home technology and private storage space.

The DAMAC Tower – Beirut was launched as the exclusive Versace Home branded residential tower in the region. The world-renowned Italian fashion house is working with DAMAC on the development of the tower.

Versace's home interiors division drew from the Company's Heritage Collection to design the apartments along with all the common areas including the main lobby, health and fitness suite and the concierge reception.

Construction is currently underway with a completion date set for late 2014.

Energy International & Engineering, the Beirut office of Energy International Corporation, is providing its own customized interior products to the



The interior of the hotel was designed by the renowned Italian design house Versace, and features their Heritage Collection of furniture and accessories. PennBarry Zephyr fans, like the one at left, will provide cool, quiet air to the main lobby (above).

project. EIC's engineers worked with contractor Electromechanical Technology Co. (EMTECH), a local MEP contractor, to supply the industrial fans for the structure's HVAC system.

Energy International & Engineering has an established working relationship with EMTECH, having worked with them on several other luxury high-rise projects in Lebanon including Verdun Heights and The Bliss Tower, both currently under construction in Beirut.

EIC's engineering staff selected each of the PennBarry fans for the DAMAC project to meet the specifications required by the contractor. The Domex, Centrex and Zephyr fans were built to suit those specifications.

"The ventilation system is an important component in a high-end residential structure like the DAMAC Towers," said Bechara Saab, Managing Director for Energy Industrial & Engineering. "The components have to be of the highest quality and provide exceptional performance at all times while being energy efficient and quiet."

The belt-drive Domex fans are designed for roof-mounted installations in low to medium pressure applications. They are ideal for general purpose exhaust applications and will be used to remove interior air while maintaining the proper pressure inside the towers.

Pennbarry Centrex in-line fans make up most of the system. Centrex fans are used as clean air boosters in both supply and exhaust systems where the installation of conventional blowers is impractical. Their compact design makes them an excellent alternative to conventional blowers.

The Zephyr low-profile ceiling units will deliver clean air to the main areas of the building such as the grand lobby. Zephyr fans feature quiet operation and can be equipped with a Lek-Trol™ variable speed controller for precise system balancing and energy conservation.

All units were built at PennBarry's El Paso, Texas facility and are put through rigorous testing before being shipped to the job site. 🏗️





# TECHNOLOGY

MetalAire Testing Facility

## METALAIRE Opens Product Testing Laboratory

*State-of-the-art facility to provide complete air flow and sound testing for all METALAIRE products*

Energy International recently had the pleasure of welcoming the president and owner of Metal Industries Inc. (MI) of Clearwater, Florida, manufacturers of METALAIRE products represented by Energy International throughout the Middle East.

Jay Poppleton of JT Walker Industries, Inc. owner of Metal Industries Inc. and Damian Macaluso, President of Metal Industries Inc., sat down with the EIC executives and engineering staff to discuss Metal Industries new testing facility and to introduce some new products and technologies including a new gel seal HEPA unit designed for labs and a new line of thermal diffusers.

EIC has enjoyed a tight working relationship with METALAIRE for more than 30 years, nearly as long as EIC has been in business. Both companies are predicting a very profitable year in 2014.

"We've enjoyed the relationship," said Macaluso. "Our records date back 28 years, but that was the days before computers, it's probably 30 years or more, a long, long time."

Metal Industries has recently begun testing in its new "Tokey Walker Research and Development Laboratory", named after the company's founder.

The new 5,780 sq. ft. multi-lab test facility which houses an acoustic lab room, a future louver and damper air performance chamber test room, and there are plans to build a chilled beam calorimeter chamber. The acoustic lab



The acoustic lab was constructed on a six-inch deep, isolated concrete slab, (under construction, above). The acoustic cell walls are constructed of 12-inch concrete blocks filled with sand covered with a flat insulated metal deck ceiling.

is up and running with work continuing on the additional facilities. Once fully operational, the lab will be able to test sound and airflow concurrently.

Air flow capabilities can be tested to 6,000 cfm for terminal units and 50,000 cfm for louvers and dampers up to 48-

in. by 48-in. When mixing temperature efficiency is required, Metal Industries utilizes a 60 channel multiplexor to obtain real-time temperature mixing and thermal gradient data.

The lab also includes the necessary equipment to accurately obtain airflow



# TECHNOLOGY

## MetalAire Testing Facility



parameters such as static and total pressures, humidity, temperature and barometric pressure.

Sound testing capabilities have been increased. The former lab was able to measure from 125Hz to 10,000Hz. The new facility measures 50Hz to 10,000Hz - 50Hz being a critical range for HVAC equipment – and can test to as low as 35dB.

The acoustic lab is constructed of 12-inch cement blocks filled with sand, erected on an isolated 6-inch thick concrete slab covered with a flat insulated metal deck ceiling.

The acoustic lab is a reverberant room qualified for the measurement of broad-band sound levels in accordance with ANSI S12.51, ISO Standard 3741 and AHRI Standard 220.

The lab has state-of-the-art instrumentation for data acquisition which is composed of a B&K rotating boom and a B&K Pulse System analyzer with the data evaluated using a computerized system.

Macaluso also announced the newly-formatted METALAIRe Air Terminal Units catalog. The new catalog uses a three



Louver and damper flow testing (top left) may be performed at flows exceeding 50,000 CFM for specimens up to 48-inch by 48-inch. The lab is equipped with state-of-the-art instrumentation (top right). The new facility allows for testing sound and airflow at the same time (above).

ring binder format instead of the usual perfect bound format, making it easier to remove single pages and scan them or copy them to add to submittals.

In the coming months, METALAIRe will offer dynamic submittals that can be customized per specific model number.

The database will be cloud-based and available on any device from PC, to tablet to smartphone.

“Being cloud-based allows us to update the data anytime so you will always be downloading the most recent data,” said Macaluso. 📄





# PEOPLE NEWS

## EIC Welcomes New Faces



The Estimation Engineering staff gathered together recently for a seminar on Novovent ventilation products. Attendees included (left to right), Hussein Nassif, Marwan Mroueh, Mahmoud Al Kirdi, Mohamad Zietoun, Majd Kannann, Amany Saayed, Javier Garcia, Technical Sales Engineer for Novovent and Wissam Nassif, International Sales Manager for EIC.

**T**he Energy International family continues to grow. Join us in welcoming Ruby Shweihat, Marwan Mroueh, Hussein Nassif, Tony El Kehdi and Said Bou Orm.

Ruby will be working at EIC's Jordan office as an Applications Engineer. Ruby holds a Bachelor of Science degree in Mechanical Engineering from the University of Jordan where she focused on the design and engineering of solar PV systems.

Ruby has worked as a sales engineer and maintenance

coordinator - logistics at Hanania Ideal Solar Enrgy Co., and worked as a design and sales engineer for Philadelphia Solar Co. p v systems and also worked as a technical support and design engineer for Leading Engineering & Investment Co. WLL providing technical support for KSB pumps and valves.

Marwan and Hussein join EIC as Estimation Engineers and will work out of the Beirut office of Energy International and Engineering.

Marwan comes to EIC from Gravity

Brewing (961 Beer) where he worked as a maintenance and production supervisor. He holds a Bachelor II, General Science degree from College du Sacre-Coeur, in Gemmayze, Lebanon and a Bachelor of Mechanical Engineering from Beirut Arab University in Debbieh, Lebanon.

Marwan has also studied Automotive Mechanical and Electrical Systems at the Hariri Canadian University in Lebanon. As part of his studies, Marwan served internships in Mechanical Engineering with A/C Consultant working on the EMAAR





# PEOPLE NEWS

project in Dammam, Saudi Arabia.

When Marwan is not building quotation packages, he likes to swim play darts and billiards and enjoys all kinds of sports.

Hussein Nassif is a 5th year Mechanical Engineering student at the Beirut Arab University in Debbieh, Lebanon. He will graduate with his degree at the end of May this year. He received his Lebanese Baccalaureate in General Sciences from Rawdah High School.

As part of his university studies, Hussein served an internship as a Maintenance Technician for Yamama, a manufacturer of rice, pasta, syrups, vinegar, flavored waters and juices.

In his leisure time, Hussein enjoys drawing, football, 3D modelling, music, mechatronics and machine design.

Tony El Kehdy joins the Beirut office as a Sales Engineer. He is a recent graduate of the University of Balamand in Koura, Lebanon where he earned a Bachelor's Degree in Mechanical Engineering. Tony did his undergraduate studies at the American University of Beirut (AUB) where he majored in Physics.

He has interned at Dar Al Handasah, Shari & Group and Mercedes Benz, Toufic Gargour & Fils S.A.L. and worked at the Office of Communication at the American University of Beirut.

When not working for EIC Tony enjoys music, jogging, swimming and reading.

Said Bou Orm joins the Estimation team at the Beirut office. Said is a graduate of the Lebanese University-



Said Bou Ohm (above left) and Tony El Kehdy (above center) have come on board at Energy International & Engineering, EIC's Beirut, Lebanon office. Ruby Shweihat (above right) joins us as an Applications Engineer in the Jordan office.

Faculty of Engineering-Branch III (Hadath) where he earned a degree in Mechanical Engineering.

Said has also worked for Saudi Oger in Riyadh, Kingdom of Saudi Arabia, Midea Air Conditioning in Doha, Qatar and with Arabian Construction Company (ACC) on the construction of the Al Hosn 440 Residential Tower project in Beirut Lebanon.

## On The Move

Majd Kannann has been promoted from Estimation Engineer in EIC's Beirut office, to Sales Engineer, transferring to the Energy international – Riyadh office in Saudi Arabia where he will be working for Mazen Sheet.

Please join us in congratulating Mohamad and Majd on their achievements. 🎉

## World Cup Fever

EIC was struck with a case of World Cup Fever recently as employees from several of EIC's home and regional offices participated in the 2014 World Cup Contest.

29 employees from U.S. headquarters, Beirut, Jordan and Riyadh offices entered the contest, filling out their brackets, making their choices of the 16 teams to advance through the knockout rounds to the World Cup finals.

Nine participants correctly picked Germany as the winner. Germany defeated Argentina 1-0 in overtime to win the 2014 World Cup.

Alex Itawi of the U.S. office finished in first place with 55 points. Mazen Sheet of the EIC Riyadh office finished second with 50 points. 🏆

